July/August 1989 $2.00

MONTANA OUTDOORS

OUR POINT OF VIEW

MIKE LOGAN

MONTANA'S STATE PARK SYSTEM PRESERVES THE BEST of our historical, natural, and recreational resources. Indeed, in this Centennial year, it is a snapshot of our heritage. Sites like Lewis and Clark Caverns, Makoshika, Pictograph Caves, Madison Buffalo Jump, Headwaters of the Missouri, Giant Springs, Fort Owen, Rosebud Battlefield, and Bannack are bridges to our past and to our roots. These irreplaceable treasures are fragile and, once lost, gone forever.

Unfortunately, lack of funding in recent years has not allowed for proper care of all of Montana's state parks. As a result, some of them have suffered damage through misuse and neglect. I am confident, however, that Montanans will not allow this rich natural and cultural legacy to slip away.

We must establish a common vision for the future. In the coming year, an *ad hoc* committee consisting of members of the Legislature, key user and partnership groups, the tourism industry, local government, and others will host public meetings across Montana to address the future of the park system: its role, its priorities, and its funding.

As we enter our second century of statehood, we also begin a new era of partnership with visitors and patrons of the park system. In much the same way that sportsmen responded earlier in our first century when Montana's fish and wildlife resources were threatened, park visitors, through user fees, can provide a new and substantial funding foundation. Perhaps more important, our partnerships are beginning to transcend financial support and embrace advocacy, volunteerism, and an active voice in management. Just as sportsmen turned a badly depleted wildlife resource into the finest hunting and fishing in the lower 48 states, Montana's park visitors and friends cannot only help us to protect and preserve our park resources, but also turn them into centers for education, leisure, inspiration, recreation and, yes, even a shot in the arm for our economy.

Let's use the sporting public's example and bring the parks program to full parity with the fish and wildlife programs in Montana. The mechanism for this change will be the people of Montana, particularly park visitors.

I invite you to enjoy our park system this Centennial year and to participate in our planning discussions in the coming winter.

K.L. Cool
Director
Montana Department of Fish, Wildlife & Parks

Turn to page 18 for a photo essay, "I Am in Love with Montana."

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MONTANA OUTDOORS

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Back Cover—Serious pickers guard the location of their spots as closely as fishermen guard theirs. Only the quarry isn't silver with scales. It's deep purple with flavor. Finding a rich patch of succulent Montana huckleberries brings a smile to the face of the finder, as affirmed by **Steve Wirt's** back cover photo.

New Entrance Fees Help Ailing

Lying on the warm, brown sand, the midmorning sun and a light breeze caressing my back, I saw a snowy white pelican coasting gracefully above the

crystalline water. Alone in a cove bordered by pine-covered hills, I spent several hours reading and watching, the stillness broken only by the haunting cries of gulls and the occasional splash of a trout rising.

Does this make you think of an exclusive vacation spot available to only the rich? Actually, anyone can enjoy Canyon Ferry Reservoir's solitude and beauty. Weekdays are my favorite times to visit. On weekends and holidays, one can still enjoy the scenery, but not the same privacy. Near Helena, Canyon Ferry is Montana's most popular state recreation area, and it accommodates over 600,000 visitors each year.

The Parks Division of the Montana Department of Fish, Wildlife & Parks manages Canyon Ferry and 59 other parks included in the Montana State Park System. This system, comprising 30,728 acres across Montana, receives 2.9 million visits each year—more than Glacier National Park, and nearly two-thirds that of Yellowstone National Park.

Recreationists enjoy activities such as camping, fishing, hiking, swimming, boating, and nature study at Finley Point on Flathead Lake near Polson; at Makoshika State Park, the state's largest park, near Glendive; at Lewis and Clark Caverns State Park, the first and most famous state park near Three Forks; and at numerous other parks. Visitors also can step back into history when they tour the ghost town of Bannack, Montana's first Territorial capital near Dillon; Chief Plenty Coups Homestead and Museum near Billings; the Rosebud Battlefield near Decker; as well as many other historical attractions offered by the state park system.

These parks preserve irreplaceable natural, cultural, and historical resources; enhance our wonder and knowledge; provide us with places to relax; offer numerous recreational opportunities; and boost Montana's local and state economies through the tourism dollars generated.

Obviously, the state park system contributes much to Montana. It's also a system Montanans should be proud to call part of our heritage. But until recently, the system was largely

Visitors can step back into history when they tour Bannack State Park, the site of Montana's first Territorial capital near Dillon.

State Parks

by Loretta Johnson

DICK ELLIS

DAVE McGEE

Giant Springs State Park in Great Falls (above) is one of the system's most heavily visited sites. Makoshika State Park near Glendive (below) is Montana's largest state park and will soon be developed into a model park with a new visitor center, expanded interpretive displays, and all-weather roads.

DIANE ENSIGN

JERRY WALKER

Lake Elmo State Recreation Area near Billings (left) and Whitefish Lake State Recreation Area near Whitefish (above) provide water-based recreation for thousands of visitors each year.

DAVE CONKLIN

undeveloped, unmanaged, and underfunded.

Don Hyyppa, administrator of the Parks Division in Helena, conjectures parks improperly maintained or unimproved may even keep non-resident tourists from returning to Montana. Over the last few years, Hyyppa said, the department has received many letters from visitors complaining about the parks. He said a typical letter might read: "Dear Governor: We got your invitation to come to Montana. We came. It's a beautiful state. But we're never coming back because the state park we camped in was in deplorable condition."

Yet it hasn't been just non-resident visitors who have complained about the sore condition of our parks. Indeed, resident park users have also raised their voices about declining conditions.

THE FADING COMPLEXION OF MONTANA'S STATE PARK SYSTEM can be attributed to a common ailment in troubled economic times—insufficient money for all needs. While the park system received $2.2 million in 1977, by 1989 the figure had fallen to $745,000. The reason for this sharp decline can be traced to three causes: Since 1976, the state parks' share of Montana's Coal Tax Trust Fund earnings has been cut in half. In addition, since 1979, funding received through the Federal Land and Water Conservation Fund has been slashed to 1/20th of what it was. And to make matters worse in a state that does not use hunting and fishing license dollars to operate or maintain its park system, all state general fund support for the state park system was eliminated in 1987. When loss in buying power due to inflation is added to the above woes, the funding situation appears bleak indeed. With the exception of Minnesota, Montana operates more sites than any other state, yet Montana ranks 48th in the nation for financial support of those parks.

At the same time that parks revenues were falling, park visitation was increasing and managers were scrambling to make the best use of limited funding. Despite the fact that acquisition of new park areas was put on hold in 1985 so resources could be used to care for areas already in the system, those resources were stretched so thin that only a few of the state's 60 park system units were adequately staffed and maintained. Most sites received only minimal maintenance and emergency repairs, and some previously acquired areas remained completely undeveloped.

As a result, and despite the ongoing efforts of Montana's park managers, conditions continued to decline and irreplaceable natural, cultural, historical, and recreational resources continued to be lost.

Faced with an unenviable predicament, and hearing mounting complaints from the public concerning the plight of the state park system, the Parks Division looked to that same public for an answer to the system's funding dilemma.

THE MESSAGE THAT CAME from park users and concerned others was that properly caring for and preserving the state's parks should be a priority. People noted that parks are special places and that having users pay for the opportunity to enjoy these special places would not be out of line.

According to Hyyppa, all other states charge entrance fees to state parks. These fees, he said, make up half or a little less of annual operating budgets in other states' park systems. These states provide further support through state general funds. "One of the things that makes Montana unique," Hyyppa said, "is that we are just about the only state in the union that doesn't receive general fund support for our parks."

ARMED WITH PUBLIC APPROVAL of an entrance fee concept, in December of 1988 the Parks Division approached the Montana Fish and Game Commission with a proposal for charging entrance fees at most of Montana's state parks, beginning with the 1989 park season. Public hearings on the proposal were conducted throughout the state during the winter of 1989, and in April the Montana Fish and Game Commission adopted a new park fee system which incorporates entrance fees to most state parks.

The new fee system authorized a 50-cent daily entrance fee for all walk-in park visitors aged 12 years and older, or a $2 daily fee for each single, private vehicle entering a park, regardless of the number of occupants. A $12 Montana State Park Passport admits an individual or all members of an immediate family to all of Montana's state parks for an entire park season. Entrance and camping fees will be charged from May 15 to September 30 each year. Fees will not be required at 23 state parks that do not meet fee criteria, such as those lacking facilities or services. In conjunction with adoption of the new entrance fee, the 1989 Montana Legislature passed House Bill 662 which allows residents 62 years of age and older and disabled residents holding a federal Golden Access Passport to camp at parks for one-half the regular camping fee. These visitors, will, however, have to pay the $2 per vehicle or 50-cent walk-in entrance fee.

Although the total cost for making all the improvements needed at Montana's state parks is currently estimated at $60 million, Hyyppa believes the new entrance and camping fees will help the ailing system. He expects the new fee system to raise between $500,000 and $1 million annually.

Hyyppa said the money generated by the fees will be used in three ways. "First," he said, "it will provide for better day-to-day care of the parks, such as increased park protection, public information, and park security. Second, we will begin to catch up with the backlog of area maintenance, the care of the facilities, and the preventive or cyclic maintenance of existing facilities. Third, we will start a program to upgrade our parks. We will pick some key units around the state and make some significant improvements to those places."

As part of this latter effort, Hyyppa said, park personnel will install new comfort stations and drinking water facilities; construct new boat ramps and picnic shelters; repair existing docks and interpretive displays that have deteriorated through vandalism, weathering, and hard public use; build new park roads; and expand present parking areas.

In addition, the Parks Division will develop one area as a model park to serve as an example of what can be

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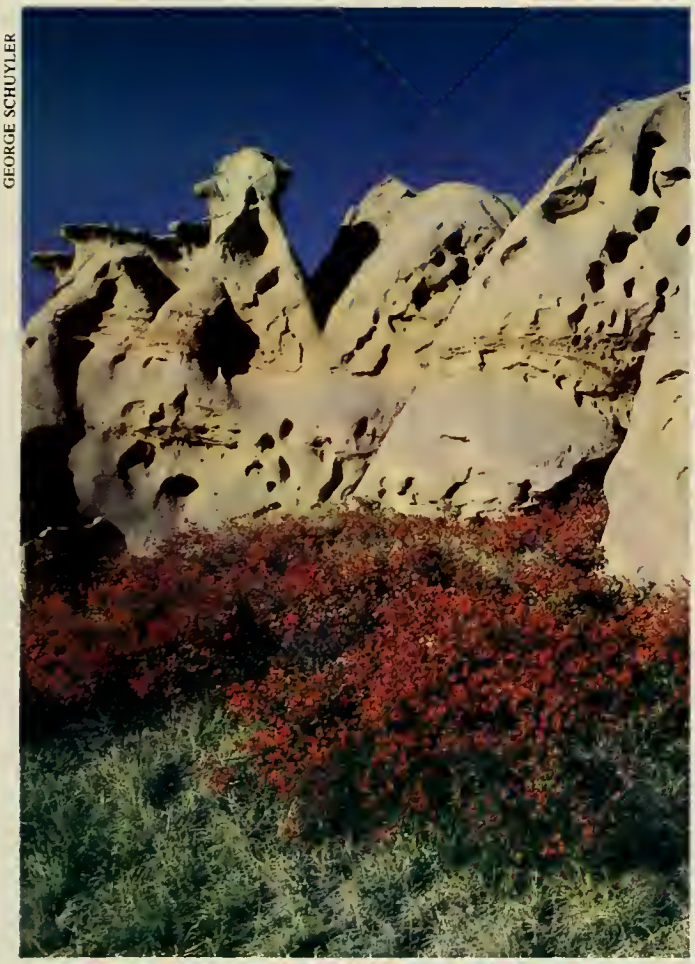


GEORGE SCHUYLER

DIANE ENSIGN

Sandstone pillars rise from the prairie at Medicine Rocks State Park near Ekalaka (left). Visitors can enjoy photography, hiking, fishing, and swimming at many park sites in northwestern Montana (above and below left). Canyon Ferry Lake near Helena (below) is Montana's most popular state recreation area, receiving more than 600,000 visitors each year.

MIKE LOGAN

TERRY KNUPP

Wildlife

by Joan Louise Brownell

What is the remedy for this general war of extermination? Game laws and paid game wardens, in general circulation. There is nothing more simple. Mr. Theodore Roosevelt has just assured me that there is light breaking in the West...that Montana is now appointing game wardens to enforce her game laws, which of themselves are excellent; that a general sentiment in favor of real game protection is crystallizing rapidly throughout at least a portion of the West. This is indeed good news. Perhaps Western legislators have found out that game laws do not enforce themselves, and that competent, energetic salaried game wardens are absolutely necessary....

WRITING A MONTH AFTER MONTANA BECAME THE 41ST STATE in the Union, William T. Hornaday, naturalist and defender of wildlife, applauded the efforts made in Montana toward wildlife conservation. Today, most Montanans are surprised that such efforts existed. The latter half of 19th-century Montana is better known for wanton and wasteful slaughter of large animals for their hides, particularly buffalo. Intensive overhunting and unrestrained land-use practices in mining, agriculture, ranching, and lumbering altered the Montana landscape. By the 1890s and 1900s, Montana's game populations were severely depleted.

During Montana's territorial and early statehood periods, many individuals—governors, legislators, sportsmen, and pioneers—recognized the detrimental effects of civilization's relentless advance and sought to protect wildlife. James Stuart, a well-known frontiersman representing Deer Lodge County at the first Territorial Legislature, introduced "An Act in Relation to Trout Fishing." This bill became the first wildlife conservation law in the new Territory. Moving quickly through the House, the bill passed unanimously the same day it was introduced. The Council (Territorial Senate) referred the bill to its Committee on Ways and Means. This committee, composed of two attorneys from Madison and Beaverhead counties, recommended the bill after some minor changes. The Council passed the bill by a unanimous vote, and Governor Sidney Edgerton approved it in February of 1865.

This law designated that fishing tackle "consisting of rod or pole, line and hook be the only lawful way that trout can be caught in any of the streams in the Territory." It prohibited construction of dams, use of seines or nets, and use of drugs or poisons "intending to catch, kill or destroy any species of fish." The penalty could be a fine of from $50 to $200, the funds to be divided equally between the local county school and the informant.

OTHER WILDLIFE CONSERVATION MEASURES EVOLVED GRADUALLY in the new Territory. In 1869, during the Sixth Territorial Legislature, Nathaniel Boswell of Deer Lodge County introduced a bill in the House to prohibit the killing of any

Law Enforcement— The Early Years

George Bird Grinnell (left), editor of *Forest and Stream* in the 1880s, lamented the wanton destruction of big game in Montana Territory. Buffalo were nearly exterminated in 1883, a decade before the appointment of Montana's first game warden.

photos courtesy of Montana Historical Society, Helena

"antelope, deer, elk, mountain sheep, moose and any grouse, prairie chicken, pheasant, foolhen or quail between the 1st of March and the 15th of August." Reaction to the bill was less than favorable. Members of both Houses immediately wanted to decimate the bill by providing protection to the quail (mourning dove?) only. Nevertheless, each House formed a special committee to consider the bill. The House eventually passed a substitute bill by a vote of 11-6. The Council Committee struck out protection for large game, and the bill carried in the Council by a vote of 8-2, subsequently receiving the governor's approval.

In 1872, the most significant wildlife law passed by the Legislature established a closed season to protect "Mountain buffalo, moose, elk, black-tailed deer, white-tailed deer, mountain sheep, white Rocky Mountain goat, antelope or hare, between the 1st of February to the 15th of August."

In 1879, the Helena Independent hoped:

> *...that the people of Montana will observe the game and fish laws. Montanans as a rule are a law-abiding people, but there are some who do not observe the law in relation to the destruction of game. We call the attention of the people to the fact that such laws are in existence and we also call upon the proper officers to see that they are not violated.*

The enactment of protective laws, however, did not guarantee enforcement. One Montanan did "not consider they [the laws] are worth the paper they are printed on, for the simple reason that apparently no one is appointed to see that they are carried out." Historians and game managers alike have recognized enforcement as the weak link in the development of protective wildlife legislation. Early wildlife laws in states and territories relied ineffectively on local informants and sheriffs for enforcement. Not until Maine appointed moose wardens in 1852 (which became the prototype for other states) did game law enforcement begin to receive serious consideration. By the mid-1860s, the New England states had created fish commissions which eventually evolved into fish and game commissions. In 1887, Minnesota became the first state to establish the office of state game warden; by 1900, over 12 states had appointed state game wardens.

THE VASTNESS OF THE MONTANA TERRITORY increased the difficulty of enforcing wildlife laws. In 1880, Granville Stuart, one of Montana's earliest pioneers, explained the difficulties of enforcing the laws; he noted that some counties in the Territory were "large enough for a fair-sized state and are only peopled in spots, and one, Dawson, not at all." A Bozeman man wrote a few years later to *Forest and Stream*, an eastern sporting journal, that the Montana laws are "a dead letter and cannot be enforced, for the reason that our Territory is so vast in extent....The entire United States Army...would be powerless to enforce the game laws as they now are...."

George Bird Grinnell witnessed the "terrible destruction of large game for the hides alone" in Montana Territory in the 1870s, where buffalo, elk, mule deer, and antelope were slaughtered "by thousands each year, without

regard to age or sex, and at all seasons." In the 1880s, as editor of *Forest and Stream*, he continually emphasized the importance of law enforcement, stating that "laws alone can accomplish nothing" and complained that little "machinery or money" was available for "carrying out" the intent of the laws. In 1883, the same year buffalo nearly were exterminated, Grinnell wrote that "the game laws of the Territories...are inoperative. There seems to be behind them no strong public sentiment calling for their enforcement."

However, wildlife protection received support from sportsmen's or rod and gun clubs in the Territory. In the early 1880s, clubs such as the Helena Rod and Gun Club declared "protecting and enforcing game laws" as their primary purpose. The town of Billings formed a shooting club for "social and sporting purposes, but particularly with a view to enforcing the game laws and protecting the game."

SERIOUS EFFORT TO ESTABLISH GAME WARDENS in Montana Territory began in 1883. In his message to the Legislature, Governor John Schuyler Crosby advised it to "authorize the Executive to appoint a salaried game warden for each county and that half of the fines imposed on offenders against the game laws be given to such officers to stimulate them to a vigilant discharge of their duty." The legislators ignored Crosby's suggestion. In 1885, Jay Wells of Beaverhead County, who had come to Montana after five years as a trapper in Alaska, introduced an unsuccessful bill for the appointment of game wardens. During the 1887 legislative session, John E. Rickards of Silver Bow County, later to be governor of Montana, sponsored a bill to provide for the "better protection of game and fish and for the creation of the office of Game and Fish Detective." Although accompanied by a petition signed by 168 sportsmen who declared "the condition of affairs in said Territory urgently calls for such an enactment," the bill failed.

In 1889, Governor Preston Leslie asked the last Territorial Legislature to scrutinize the wildlife laws and "tighten the bands" against waste. A legislative committee considered his suggestions and recommended appointment of "a suitable person or persons **in each county** to see that the laws...are strictly enforced." Edgar Condon of Silver Bow County introduced a bill "for the better protection of game and fish and for the creation of game and fish warden." The bill passed unanimously in the House and by a vote of 10 to 1 in the Council.

Each county of the Territory could now appoint a game and fish warden to investigate violations of the law and prosecute infractions. The county commissioners, after receiving a petition of at least 100 resident taxpayers, would decide if the best interests of the county demanded a warden. If appointed, the warden would serve at least three months and not more than 12 months and his compensation could not be more than $100 per month drawn from the county general fund.

Citizens of Lewis and Clark County petitioned to appoint a warden in 1892, but the commissioners concluded they could not secure the services of the proper kind of man for that salary and therefore didn't hire anyone. The Helena Independent disagreed with the commission's decision, commenting that "...the need for such an officer was never felt more...." Silver Bow County Commissioners appointed Edward T. McKinstry as the first county warden in Montana in 1893, at a salary of $100 per month for a period of three months. Silver Bow County had six different wardens between 1893 and 1900, indicating the political nature of these appointments.

Dissatisfaction with the lack of enforcement efforts by other counties led one sportsman to suggest that "if you want these laws to be of any use...the governor [should] request each county to appoint a game warden at a fair salary whose sole purpose it is to see that the laws are carried out." During the next legislative session (1895), Governor Rickards called for mandatory appointment of game wardens in the counties to secure enforcement "in every locality." The Legislature followed his suggestions and made it mandatory for the county commissioners to appoint a game warden when presented a petition signed by 100 residents of that county.

In July 1895, Gallatin County responded to this new provision and appointed James F. Keown as game and fish warden at a salary of $75 per month. In 1899, the Lewis and Clark County Commissioners appointed Frank E. Hirsch as the county's first game and fish warden at a salary of $75 per month. Not all counties, however, were so inclined. The Flathead County Commissioners fixed the salary of game warden at $10 per month, which suggested to one prominent citizen that "...while some of the residents of Montana may desire to preserve the game of the State, the officers of the county are very unwilling to take any action which will prevent the extermination of the game but rather aid in the killing and slaughtering of game."

THE INADEQUACY OF A LOCAL SYSTEM came as no surprise, and as one sportsman stated, "...the officer needed is a state game warden whose business it will be to hunt out offenders and prosecute them...." Governor Rickards, although recognizing the ineffectiveness of the game laws, was unable to endorse a state game warden system because of other constraints on the treasury. The Helena Independent expressed disappointment in this decision, noting "that the difficulty lies in the inability to enforce the present laws." While legislators in the 1893 session introduced several bills to create a state office of game and fish warden, none was successful.

During the fourth state Legislature in 1895, wildlife protection efforts gained momentum. The most significant measure established a Board of Game and Fish Commissioners. The law authorized the governor to appoint three members for three years to serve without compensation; their duties were "to secure through and by agents and subordinates the enforcement of all laws of the state for the preservation and propagation and protection of game and fish in the State." This board appointed a

The rapid depletion of game animals due to unrestricted hunting in the latter part of the 19th century prompted many Montanans to press for passage of game laws and a means for their enforcement.

ARTHUR LANNING

photos courtesy of Montana Historical Society, Helena

courtesy of L.J. Dorrington

The seventh Montana Legislature in 1901 passed, almost unanimously in both houses, an "Act to provide for the appointment of a State game and fish warden, deputy game and fish wardens and special deputy game and fish wardens...to examine into and inquire about any violation of the game and fish laws of the state...." Pictured here are Montana's deputy state game wardens in 1909: 1—Al Boyer, 2—W.H. Holman, 3—Tom Berkins, 4—Henry Sherlock, 5—Henry Ferguson, 6—Dick Vance, 7—Henry Avare, 8—Pete Nelson, 9—Harry Cosner, 10—Leonard Lowns, 11—Dave Morgan, 12—Dugal McCormick, 13—Wm. J. Dorrington, 14—Dad Thompson, 15—J.C. Clifford.

game warden, R.A. Wagner of Bozeman, to serve as secretary but his duties also included examination and inquiry into fish and game violations.

In the first annual report of the Game and Fish Commission in 1900, the chairman, Morton Elrod, praised Wagner's efforts. Apparently Wagner received no compensation for his efforts, often covered his own expenses, and did work that should have been done by county wardens. Elrod commented that "the past four years have proven conclusively that county commissioners have no interest in the protection of game and this protection should no longer be left in their hands." By 1900, only four counties of 24 (Gallatin, Silver Bow, Lewis and Clark, and Fergus) had appointed fish and game wardens. Elrod complained that "want of funds has prevented both the board and the state wardens from doing what they saw needed to be done, while loopholes in the law made much of the work performed, useless."

In 1900, the Board of Game and Fish Commissioners printed in every state newspaper a public questionnaire regarding game and fish issues. One of the questions asked readers to "give in full your idea of game wardenship, how they should be appointed, how many, salaries they should have, and other ideas you may have?" W.E. Wilson of Maiden, Montana, responded, "Without game wardens who are paid sufficient wages to enable them to give their whole time to the duties of looking after the game there may as well be no restrictions against the indiscriminate slaughter of game." The Board of Game and Fish Commissioners recommended that appointment of county wardens be placed in the hands of the board rather than in the hands of county commissioners and wardens and deputies appointed be free to work any place in the state, irrespective of county.

In 1901, Governor Rickards, influenced by forceful and persistent outside interests, called for enactment of "adequate" legislation or "our game will soon be practically exterminated." The seventh state Legislature passed, almost unanimously in both houses, an "Act to provide for the appointment of a State game and fish warden, deputy game and fish wardens and special deputy game and fish wardens... to examine into and inquire about any violation of the game and fish laws of the state...." The Helena Independent exclaimed the law was "one of the most important ever enacted in this state looking to the preservation of the game of Montana." The governor immediately appointed William F. Scott of Deer Lodge as state game warden, a man he felt was "about as familiar with the state and its game hunts as any man in the state." As the 20th century began, Scott's appointment signified the state's acceptance of its responsibility to wildlife conservation and enforcement. ■

Small Lakes—Big Opportunities

LAKE MARY RONAN, named for an early settler, is a 1,500-acre lake seven miles northwest of Proctor. North of Polson, the lake rests at an altitude of 4,000 feet. It crowns a sparsely populated area of ranches and farms; the drive through Proctor Valley is enough to make the trip worthwhile. Nestled in a bowl, the lake is surrounded by a forest of mature trees. Trails in the surrounding area abound with wildflowers and wildlife. Deer, elk, and moose frequent the area and bald eagles and ospreys nest along the shore.

This lake abounds with both warm- and cold-water fishes. Kokanee salmon, westslope cutthroat trout, rainbow trout, pumpkinseed, and bass provide many hours of outdoor recreation. Approximately 400,000 salmon and 50,000 cutthroat are planted annually. Rainbow trout reproduce naturally in the streams that enter the lake, and largemouth bass nest in the shallows.

Last year, approximately 100,000 fish were caught at Lake Mary Ronan, with both winter and summer fishing popular and productive. Salmon make up 85% of the catch. The lake is closed from March 16 to the third Saturday in May to protect spawning of rainbow and cutthroat trout.

Lambeth Memorial State Recreation Area, on the west shore of Lake Mary Ronan, was named for Robert Lambeth. Director of the then Department of Fish and Game, Mr. Lambeth also served as the Polson-based game warden. He and his wife were active in the community until their deaths in 1972. The recreation area comprises 80 acres shaded by Douglas-fir and western larch. The site has 27 camping spurs, complete with picnic tables and fire rings. Drinking water is available and a concrete boat ramp and wooden dock assist in boat launching. The gate to the recreation area opens at 7 a.m. and closes at 10 p.m. daily.

Lambeth State Recreation Area is within walking distance of three private resorts. Lake Mary Ronan Lodge, Camp Tuffit, and Mountain Meadows provide full amenities, including RV hookups, boat rentals, and docks. Mountain Meadows and Lake Mary Ronan Lodge have lounges, and all three serve food. Lake Mary Ronan Lodge also has horses for rent.

For fine fishing and camping, Lake Mary Ronan and Lambeth State Recreation Area are prime picks.

THOMPSON CHAIN OF LAKES is 45 miles west of Kalispell on U.S. Highway 2. Halfway between Libby and Kalispell, the Thompson Lakes—Upper, Middle, and Lower—meander through a mature forest of larch, fir, and ponderosa pine. Seven smaller lakes in the area also contribute many hours of fishing, boating, and swimming. Surrounding land is a mixed ownership of private lots and corporate timber, with the timber lands currently open for public use. Eagles, waterfowl, loons, bears, elk, moose, and otters inhabit the surrounding forest and lakes, and the land rising behind the lakes encourages hunting for trophy mule deer.

The three Thompson lakes offer 1,074 acres of both warm and cold-water fishing. Bass, perch, kokanee, and rainbow coexist, and there are some pike in Upper Thompson. The Department of Fish, Wildlife & Parks plants approximately 50,000 rainbow each year, while bass, perch, and kokanee reproduce naturally.

Logan State Recreation Area is on Middle Thompson Lake with access from U.S. Highway 2. It is the only developed recreation area in the chain. The 16-acre site slopes gently toward the lake, where 1,500 feet of shoreline awaits. There is also a small marsh populated by birds, muskrats, and waterfowl. Wild rose adorns most campsites, while century-old ponderosa pine and larch filter the breeze.

The recreation area was named for Sidney Logan, whose perseverance was responsible for construction of U.S. Highway 2 between Kalispell and Libby. The site contains 50 camping spurs with picnic tables and fire rings, drinking water, flush toilets, and a dump station for park users. Gates open at 7 a.m. and close at 10 p.m. daily. A picnic area, a designated swimming area and dock, and a boat dock are also available. The concrete boat ramp provides access to Middle and Lower Thompson lakes. A restaurant, bar, and small-item grocery store is five miles north at Happy's Inn.

In honor of Montana's Centennial, Burlington Resources donated a Centennial acre on Upper Thompson Lake to the FW&P. There the department will develop a fishing access site. In addition, FW&P is purchasing small parcels on some of the other lakes as fishing access sites. This is made possible through fishing license dollars and the support of Montana fishermen. Local conservation groups are pursuing a larger purchase, called the Thompson Chain of Lakes. Federal Land and Water Conservation Funds would be used to acquire land reaching from McGregor Lake in the south to Loon Lake in the north. This recreation corridor would benefit hunters, fishermen, picnickers, and hikers for years to come. It is a recreational opportunity well worth protecting.

For an exceptional backcountry retreat with front-country access, the Thompson Lakes and Logan State Recreation Area will more than satisfy.

WHITEFISH LAKE offers the best of two worlds. On the edge of the town of Whitefish, this 3,350-acre cold-water lake encourages recreation. Sailing, water-skiing, and fishing all combine to give recreationists the best possible experience.

Lake trout, northern pike, cutthroat trout, and an abundance of lake whitefish challenge any fisherman's skills. The FW&P plants approximately 4,500 cutthroat annually.

The surrounding community is a vacationer's paradise. In the spring, moose occasionally visit main street, and black bear abound in the surrounding mountains. During the summer, sailing, fishing, fine restaurants, shopping, golfing, and art galleries all compete for time. Visitors may either ride the Big Mountain ski lift round trip,

enjoying lunch at the Summit House on top, or hike down the mountain using the Danny On Trail. Hikers must beware, however, because an overdose of huckleberries is a distinct possibility.

One-half mile west of the town of Whitefish, Whitefish State Recreation Area offers a quiet retreat. Located in a mature forest of pine and birch, a visitor can relax in the sun with a mountain backdrop, or, finding the shelter of the trees, remain cool in a private nook. Boating, swimming, and fishing beckon the entire season. The recreation area contains 25 camping units with tables and fire rings. Drinking water, flush toilets, and a large day-use area meet the public's needs. Reservations can be made for group picnics. Park gates open at 7 a.m. and close at 10 p.m. daily. Ample parking is provided for those using the boat ramp, and a boat dock makes launching easy. A designated swimming area with a gradual slope encourages a cool dip, and a large convention center, golf course, and driving range lie within walking distance.

Surrounded by private land, Whitefish Lake and Whitefish State Recreation area offer a serene escape.

BITTERROOT LAKE, 30 miles west of Kalispell, provides habitat for rainbow trout and kokanee salmon. Also known as "Little Bitterroot Lake," it rests at an altitude of 3,900 feet. Containing 2,900 surface acres, it is planted with approximately 7,000 trout each year. Off the beaten track, Bitterroot Lake receives little fishing pressure, and it is also a peaceful home for loons and grebes. Ponderosa pine, larch, and Douglas-fir offer shade to the visitor. Native grasses, berries, and dogwood provide forage for deer and a picturesque backdrop for a lake so clear you can study the rocks on the bottom.

On the north side of the lake, 37.5 acres of forest and lake front provide the setting for a recreation area owned by the FW&P but managed by the Kalispell Area Lions Clubs as their community project. Camping and group reservation fees collected are all returned to the site, and any additional funding comes from the Lions Clubs' budgets. This Adopt-a-Park arrangement has benefited not only a financially strapped state park system, but the public which enjoys the facility.

The site has two sections. The east half contains a rustic group meeting lodge, complete with kitchen, dining area, large fireplaces, and a meeting room. Primitive sleeping cabins and a comfort station with flush toilets and showers round out the arrangement. A swimming beach and dock are available for guests who wish to experience a cold, pristine, mountain lake. This section of the recreation area is rented for youth camps, family reunions, and other large functions; it is one of the few facilities in the county that can accommodate this kind of use. In addition to managing the facility, the Lions annually host a special camping week for handicapped Flathead area youth.

The west half of the area contains 20 camping units, complete with picnic tables and fire boxes. These are open to the public, first-come, first served. A covered picnic shelter is available for group picnics, and water and a handicapped-accessible latrine are part of the site. On this side of the facility, gates open at 7 a.m. and close at 10 p.m. Boating, swimming, fishing, and hiking are popular activities in the entire complex, and the state forests adjacent to the recreation area also invite exploration.

For a remote camping experience or for a large group outing, Bitterroot Lake Recreation Area and cool Bitterroot Lake will meet the visitors' needs.—*Marty Watkins, Region 1 (Kalispell) parks operation specialist*

Dick Johnson Retires As Deputy Director

Dick Johnson—who spent 27 years with the Department of Fish, Wildlife & Parks—retired March 30. He served in capacities ranging from a project fisheries biologist in Bozeman to the department's deputy director in Helena.

A Lewistown native and 1960 graduate of Montana State College (now Montana State University), Johnson, 56, earned his master's degree at MSC in 1962. After serving a year with the department in Bozeman, Johnson transferred to Miles City where he worked as a project biologist. In 1966, he was named regional fisheries manager in Great Falls. Johnson moved to Glasgow as regional supervisor in 1974, then to Helena in 1983 when former director Jim Flynn named him deputy director.

A letter from the Montana Fish and

Dick Johnson

Game Commission congratulated him for his long and illustrious career and listed a few of his numerous accomplishments: As regional supervisor in Glasgow, he argued for a fisheries study of the Poplar River and lower Missouri River below Fort Peck Dam. He obtained a warden's position for Circle and a parks position at the Glasgow office. He maintained dialogue and represented the sportsman's interest in heated and controversial discussions involving the free-flowing Missouri River, Charles M. Russell National Wildlife Refuge, and Bureau of Land Management wilderness. He also worked to improve landowner/sportsman relations and develop a warmwater fisheries program for eastern Montana.

The letter continued, "Your leadership abilities and professionalism followed you to Helena when you were named the department's deputy director, and they have proved to be invaluable assets in maintaining this department's status as one of the finest, indeed the most progressive, state fish and wildlife agencies in the nation."

Johnson and his wife Sylvia plan to continue living in the Helena area. Johnson is looking forward to spending more time pursuing those hobbies—like fishing—that often eluded him during his active career. He takes with him a sense of humor, an easygoing manner, dedication to his profession, and concern for his fellow employees that will be sincerely missed by FW&P personnel.

Belt Buckle Features State Fish

In recognition of Montana's 100 years of statehood, the Montana Chapter of the American Fisheries Society commissioned Helena artist Lindy Miller to sculpt a special Centennial belt buckle highlighting Montana's state fish, the cutthroat trout. The project is officially endorsed by the Montana Centennial Commission and proceeds from sale of the buckle will be used for activities to further the protection of fishery habitat in Montana.

The American Fisheries Society is the largest and oldest professional organization for fisheries scientists in North America. First organized in 1870 because of members' concern over declining North American fish populations, membership has grown from about 200 to over 8,500. Members are employed by state, federal, and international public agencies, educational institutions, and private industry.

The society is active in scientific publishing and research, supports professional symposia and meetings, administers a professional certification program, and supports legislation and policies that promote fishery conservation. The overall object of the society is to study, preserve, enhance, and manage the fishery resources and habitats of North America.

The Montana Chapter was officially chartered by the parent society on September 14, 1967. Chapter membership has grown from 15 to 150. The Montana group has promoted conservation, enhancement, and wise management of Montana's treasured fisheries.

For additional information on the solid bronze limited edition buckle, write Andrea Darling, Montana Chapter, American Fisheries Society, 2910 West MacDonald Drive; Billings, MT 59102. Cost is $20.—*Glenn Phillips, pollution control biologist, Fisheries Division, Helena*

Wildlife Viewing Guide

A group of federal and state agencies and conservation organizations are joining forces to produce a wildlife viewing guide that will be published in the summer of 1990.

The "Montana Wildlife Viewing Guide" will designate approximately 100 wildlife viewing sites across Montana. The 90-page full-color guide will contain section maps and specific information about the 100 sites. Hank Fischer, Missoula, Northern Rockies field representative for Defenders of Wildlife, will coordinate the guide and assist the more than a dozen cooperators in selecting sites for possible inclusion.

Fischer said the guide will be modeled after a similar wildlife viewing guide for Oregon.

The guide will be marketed nationally. The sites will be geographically diverse and will include lesser known areas as well as established wildlife viewing sites like national wildlife refuges and national parks. "We're particularly interested in developing viewing sites in eastern Montana where wildlife values are frequently overlooked. There will be a special section featuring wildlife viewing in Glacier and Yellowstone National parks," Fischer explained.

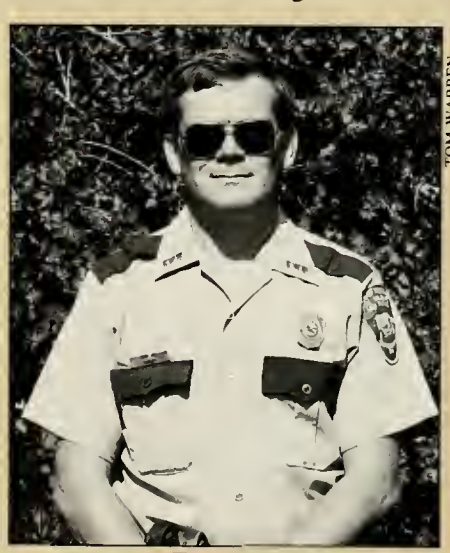
Wildlife viewing sites will be marked with highway signs keyed to maps in the guide. Information will include how to get there, what to look for, difficulty of the site, best viewing time, and other essential information. Viewing sites will be accessible by car, foot, boat, horseback, or a combination of these. Sites are on federal, state, and private lands.

If you have a site you wish to nominate, provide information about it to the Department of Fish, Wildlife & Parks, U.S. Forest Service, or any of the other cooperators.

Terry Hill Receives Shikar-Safari Award

Terry Hill, a Department of Fish, Wildlife & Parks game warden based in Billings, has received the prestigious Shikar-Safari Club Wildlife Officer of the Year award for Montana for 1988.

Hill, an 11-year veteran of FW&P's Enforcement Division, began his career in the Missoula region and was the Glendive district warden before transfer to Billings in 1985.



TOM WARREN

Terry Hill

The Shikar-Safari Club recipient is selected by the FW&P director from nominations by wardens in each of the department's seven administrative regions. Winners are selected on the basis of their professional relationship with sportsmen and landowners in their region, performance and dedication to duty, as well as participation in activities outside of daily enforcement duties.

Hill was recognized by his peers for his thorough and innovative investigations which have been instrumental in solving several major big game poaching incidents.

In a letter to Hill, William A. Falls, Shikar-Safari Club president, stated: "Seldom do the officers in the field receive the recognition and encouragement that they so richly deserve for trying to protect and preserve our wildlife."

The Shikar-Safari Club award, presented annually by the club to one wildlife enforcement officer in each state, has been presented to a Montana game warden each year since 1969.

New Entrance Fees...

continued from page 4

accomplished with the added funding entrance fees will provide. The first model park will be developed at Makoshika State Park where a new visitor center, well-appointed camping areas, expanded interpretive displays, and all-weather roads will be built.

"Once the capital improvements at Makoshika are completed," Hyyppa said, "we hope that what visitors will experience will be a sampling of the experience they might expect at most state parks in the future."

Despite its obvious importance, implementation of a new parks fee system isn't the only step the Parks Division is taking to ensure that Montana's parks remain valuable assets. Entrance fees and the additional revenues they will generate are but one part of a comprehensive program designed to revitalize the state park system. Other steps the Parks Division has outlined include:

(1) It will continue to employ Montana's Coal Tax Trust Fund to support the state park system.

(2) It will work with other state agencies to create a Montana Conservation Corps. Through the program, economically disadvantaged Montanans can improve our state parks and, at the same time, gain valuable experience for other employment after the Corps work ends.

(3) It will restructure management of the existing state park system to entice more visitors by offering high-quality facilities, new services, and information programs.

(4) It will create a State Parks Foundation for raising funds from private sources.

(5) It will establish a non-profit association to sell educational items, such as books and tapes, to raise additional revenue for park maintenance and development.

(6) It will improve existing cooperative programs and start new ones with user groups, non-profit civic organizations, tourism councils, chambers of commerce, private businesses, other agencies, and local historical societies. An Adopt-a-Park program will be initiated in interested communities—the Parks Division will supply materials and a civic organization will provide the labor.

(7) It will strengthen the department's relationship with the Montana tourism industry, which will help attract visitors to Montana's parks.

YET THE HEART OF THE PROGRAM IS THE FEE SYSTEM and the important revenues it will generate immediately.

Stated Hyyppa: "We go from zero—zip—in the last biennium, to a $2.3 million capital program for the coming two years. And the thing that's leveraged all that is the fee system. It's turned backsliding into one good, solid step forward. With these planned improvements, each state park will become a revenue generator rather than a revenue drain. And all of our parks will be better for that.

"But what has really made all of this possible," Hyyppa emphasized, "has been the continuing interest and support of the citizens of this state, particularly park users, our governor, the Legislature, and the Fish and Game Commission. Without their important support of the fee concept and the system we proposed, none of what we have planned for rejuvenating our park system would have been possible."■

DORIS

by John Fraley

Doris Huffine tends her raspberry patch under the watchful eye of her dog, Pepper.

DORIS HUFFINE STANDS barely five feet tall. She wears the casual clothes of rural life, but her bearing commands respect. She has that combination of razor wit and common sense gained only through age and experience. She and I often disagree, but I can count on one hand the arguments I've won, even on subjects I thought I knew plenty about.

Doris is somewhere in her eighth decade. I've never known exactly how old she is, in spite of 10 years of what I thought were clever attempts to find out.

She personifies the independence of the men and women who settled Montana. Alone, she operates the Huffine Montana Museum in the shadow of the Swan Mountains east of Kalispell. The small, no-fee museum houses Montana memorabilia collected by Doris and her late husband, Dan, over a 60-year period. She also maintains a 10,000-square-foot raspberry patch, a mini chicken farm, and 20 acres of trees and grass.

Doris manages her place with the skill of a seasoned construction foreman. She maintains separate task lists for the friends and neighbors who help her. When my wife and I arrive for a visit, the first thing she often does is scan the list she has built for me over the past week. My jobs include such things as rototilling, carrying wood, picking apples, and general yard maintenance. After completing my chores, we relax and visit. Doris usually rewards us with a food item or knickknack. Sometimes she gives us one of her oil paintings—I prize those highly because she is a fine artist.

She has never lost the frugal attitude developed during hard times in Montana when folks wasted nothing. Some of her clothes are older than I. She has given me wine made from huckleberries picked 50 years ago. And some of the home-canned food in her root cellar belongs in her museum. Needless to say, I'm careful of what I eat when I visit Great Aunt Doris.

She moves with the easy grace of someone used to moving about quickly in rough surroundings. Once when we were huckleberrying, I bent to pick a few berries, looked up, and Doris was gone. She had marched around the bend of an old logging road much more quickly than I'd thought possible. When I caught up with her, she didn't look winded. She claims that as a young girl she could outrun all the other children at the annual county fair races. She says she could take 'em all in the broad jump, too. I believe her. In fact, I've often wondered what she could have done with a scientific training program and a pair of Nikes.

AS A YOUNG WOMAN, Doris thought nothing of hiking 20 miles in a day. She traveled all over Glacier National Park on foot and horseback, in what were then considered clothes that only men wore. She spent a winter at Cut Bank Ranger Station with Dan, often skiing or snowshoeing 22 miles into East Glacier to get supplies and mail.

Doris has been part of the history of the Flathead country and Glacier Park for over six decades. In 1925, she and her cousin, Helen, came by train from Iowa to work as maids in Glacier Park Lodge in East Glacier for a dollar a day. Doris wasn't satisfied with just one job, though. Soon she was also working at Hileman's Photo Shop and at Mike's Place, the local nightspot.

Across from the lodge was a train platform that served as the local gathering place for the young park employees. One night, Doris met Dan Huffine, a tour bus driver for the Glacier Transportation Company. At first, she didn't think much of him.

"He and another fellow came up behind me, picked me up, and carried me down the platform steps," recalled Doris. "I was so mad that I thought I'd never get over it."

They got married in 1927 on a dare, with Dan saying, "Bet you don't have the nerve to get married," and Doris replying, "Bet I have."

In early fall of 1928, a man came to the couple's home in East Glacier and asked if Doris would like to cook for the crew surveying the steep, east-side route of Going-to-the-Sun Road over Logan Pass. Doris had never cooked for a large crew, but when she learned the pay would be $100 a month, she decided to accept the offer.

In early September, Doris and Dan drove five miles on the road that existed along St. Mary's Lake, then hiked the 11 miles past Sun Camp to the survey camp at Reynolds Creek, several miles below Logan Pass. After arriving, Doris discovered why they needed a new cook. The previous cook had been frightened off by black bears feeding at the camp refuse site. The woman had reached her limit when one of the bears groped through the flap of the cook tent and pawed her pie dough.

Doris (left) and hiking partner Myrna in Glacier National Park, 1927.

Doris and husband Dan at East Glacier, about 1930. The Huffines operated a tourist camp at Essex in the 1950s.

The black bears didn't bother Doris, though, because she was too busy to worry about them. Besides, the camp dog kept them away from the cook tent most of the time. With virtually no facilities, she baked bread and prepared huge dinners for 22 men each day. The appetites of the crew required that a large pack train make daily treks to supply the camp.

Everything was going smoothly for the crew until one evening in mid-October, when Doris looked out from the cook tent. As she remembers, "I saw grizzlies, eight or nine of them. You couldn't imagine how close." After the grizzlies moved in, the black bears moved out, and the camp dog lost her nerve.

"One night we were awakened by the worst clatter you ever heard," she recalled. "Somebody screamed 'Bears, bears—big and better bears!' " A grizzly had rammed into the side of a tent, knocking over a tin wood stove and several sleeping surveyors. The bear had been digging for bones the dog had buried along the side of the tent.

SOME MEMBERS OF THE CREW complained once the grizzlies began to move in around the tents at night. Still unfazed, Doris thought the men were overreacting. Finally, the foreman ordered a retreat to Sun Camp, where the party stayed until the November snows forced an end to the work season.

In the early 1930s, Doris and Dan migrated over Marias Pass to the nearly unsettled valley of the Middle Fork of the Flathead River. In the ensuing decades, they maintained tourist camps at Stanton Lake and Essex before the advent of plowed roads and electricity. Doris also found time to work at the post office and Izaak Walton Inn at Essex, serve as postmaster at Nyack, and write a column for the Hungry Horse News.

To me, Doris' enduring mettle and independence are her most impressive attributes. Recently, in the middle of a dark night, a prowler tried to enter her house. Doris was startled by her dog, Pepper, howling in the front yard. When she went outside and scooped up Pepper, she saw a stranger enter her gate and start toward her. She backed quickly into the house, locking both the screen door and the inside door before the man could get in. The prowler repeatedly scraped on her screen door and demanded entry. Doris, weapon in hand, calmly refused, told the man to get down the road, and called the sheriff. Deputies came, but the man had faded into the trees behind the house.

Later that night, the man returned and repeated his attempts to get into Doris' house. Doris called the sheriff again, and the deputies, more careful this time, caught the man and took him away. Knowing Aunt Doris, it was lucky for him his mischief failed.

Doris maintains her financial independence, partly through her raspberry sales. Her raspberry patch provides a major cash source, and it is very important to her. In the fall and spring, she carefully manicures the plants; in the summer, she picks hundreds of gallons of what she and her many customers consider the plumpest and tastiest raspberries in the valley.

She guards the patch with the ferocity of a pit bull. Once, a few summers ago while Doris was out gallivanting for the afternoon, I was assigned the task of rototilling the edge of the patch (one of the few things she allows me to do without strict supervision). Nearly finished, I took a short break and munched a few berries. Well, to be honest, I was stuffing berries in my mouth as fast as I could—after tilling around and around the patch and eyeing those bright crimson morsels, my will power dissolved.

In the middle of my feeding frenzy I heard a car pull into the driveway. "Uh-oh," I thought, "that must be Doris and Lillian. I'd better get out of the berries." The problem was, just as I stopped eating I heard Doris, only a few feet away, screaming, "WHO'S IN MY RASPBERRIES!" She had jumped out of the moving car and covered the 300 feet between the museum and the patch in what must have been world-record time for women over 80.

"Oh, hi Doris. This is rototilling day, remember? I was just checking the edge of the plant row."

Silence.

"Well, Doris, I'll just restart the old rototiller and finish up now."

Doris still didn't say anything. She just looked at me through her cat-glasses, her mouth held crooked. I'm sure she saw me eating her beloved berries, but she let it go and never scolded me about it. I may be the only person ever caught eating berries in her patch who survived to tell about it.

If Doris has a major fault, it is her excessive drinking. She displays all the signs of an addict. For example, she hides empty bottles around her house and in her outbuildings. She buys at different stores so no one will know how much she's drinking. And when she takes a drink, she guzzles it like a thirsty town drunk. Doris denies she has a problem, although she admits, "I'm crazy about the stuff!" I'm ashamed to admit that I've bought up to five bottles for her in one week, but I take comfort in knowing that too much Mountain Dew never killed anyone.

MY FRIENDSHIP WITH DORIS has enriched my life; in fact, she may be the most important person I've ever known. Her pride and sense of purpose are inspirational. She has done many things in her life that would challenge anyone. Her example has convinced me of the wisdom of her generation, and through her I've shared the Flathead's past. I bring her fish from a high mountain lake; she tells me what that lake was like 50 years ago. I describe the skeleton of an old cabin I found in the woods; she tells me when it was built and talks of the characters who lived there.

Throughout her life, Doris has met hardship with the defiance of a badger caught in a leg trap. Recently, she's had a very serious medical problem. Even a short walk would leave her breathless. She began receiving transfusions each month and seems to be recovering. Doris makes light of the problem in her usual manner: "It's an awful thing, those doctors. I pay 'em to take my blood for tests, then I pay 'em to put it back in again."

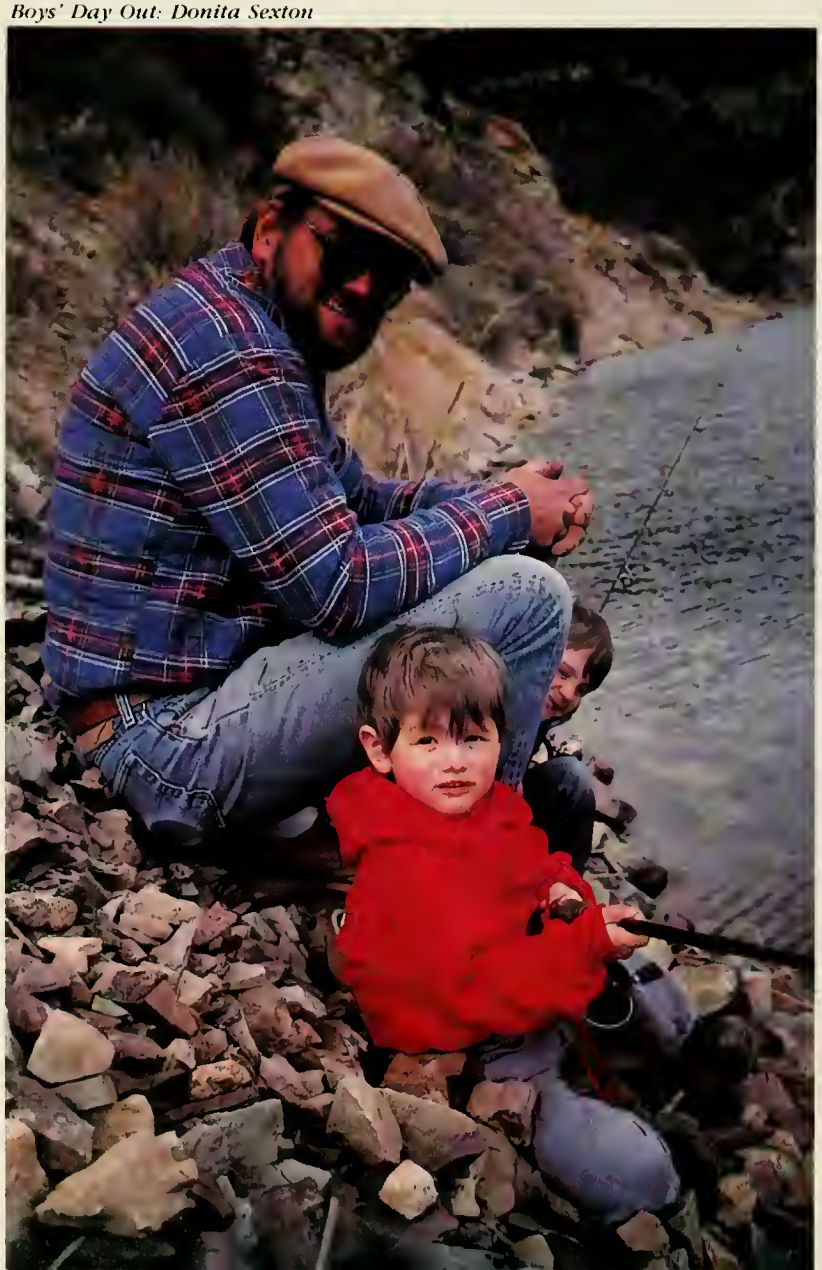
Doris downplays the hardships and effort of living on the edge of civilization, saying simply that she never knew anything different. A sign above her museum door proclaims her independence. It reads: "Only your donations keep our doors open. No government aid received here."■

I am in love with-

Montana

For other states- I'ha
respect, recognition- even some affection- but
it is love, and its difficult to analyze love when

Boys' Day Out: Donita Sexton



"Uncle Joe": E. Gary Petersen

admiration;
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oure in-it . . .

Calligraphy: Jeanne Moon

Elk Hunter: Dave Books

Kayak Caper: Tony C. Caprio

Feeding Time: George Schuyler

Sweet Reward: Diane Ensign

Climbing the Falls: Diane Ensign

Breakfast and Good Gab: Bob Cooney

I am in love with Montana...

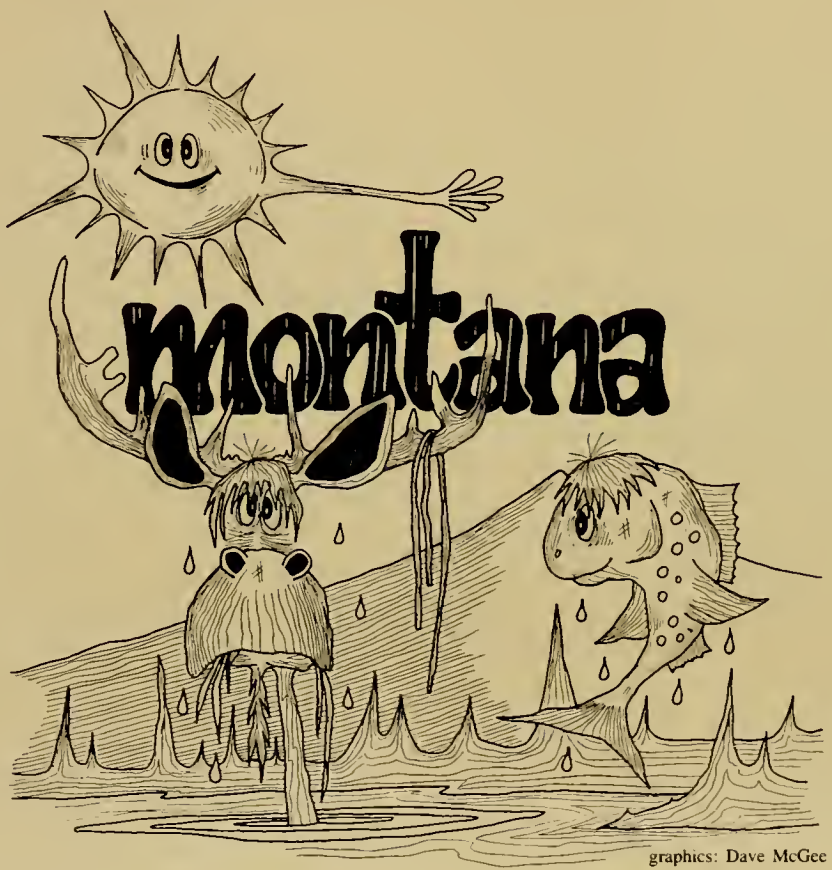
Spiffy Breeze: Diane Ensign

Chilly Pursuit: Gary D. Holmes

Montana Outdoors Artistically Translated

When I created this, Montana's outdoors—and *Montana Outdoors*—was more than likely on my mind. It was definitely an inspiring factor. Therefore, I thought your readers might like to see my artistic translation.

I do cartoons of similar character when the mood is right. If a smile develops as your readers look at my cartoon, my task has been accomplished.—*Dave McGee; Great Falls*



graphics: Dave McGee

Public Access on the Smith

I read with interest the letter from Curt McEwan (*Montana Outdoors*, "Readers Respond," May/June 1989) objecting to a permit system for the Smith River, in particular the proposed allotment of permits to outfitters. While I agree with Don Hyyppa's reply that some people may not have the experience or equipment to run the Smith or any other river without the assistance of an outfitter, this does not mean it is necessary to give outfitters priority access to the river or other public resources.

By allotting a certain number of permits to outfitters, the state in effect will be giving away a public resource—i.e., access to the river. This gives outfitters private property rights. (I support outfitting as a genuine and legitimate use of our public lands; however, I do not believe in giving away control of public resources to private parties. Permits are, in fact, access rights.) Just as the Forest Service and the Bureau of Land Management have made grazing leases more or less private property by guaranteeing a certain number of AUMS of forage, and, more important, allowing ranchers to transfer federal grazing leases to buyers when they sell base property, the federal government has created private property.

A much better way to operate such a permit system—if permits are absolutely necessary—is to have 100% of permits available for private parties and citizens by lottery. Those who feel they need the assistance of an outfitter will contact those outfitters who offer trips down the Smith and make their own arrangements. This is how the present permit system for hunting access works. If I wish to hunt for bighorn sheep, I must apply for my permit. Then I can choose to hire an outfitter or not. The outfitter does not "own" the access to bighorn sheep and no outfitter should "own" access to a river, either.

There are several problems with guaranteed allotment systems. First, the general public may be forced to hire an outfitter even if they have no need for an outfitter's services simply because it is easier than waiting for a permit. Right now on the Colorado River, it takes eight years for the average private party to obtain a permit since the vast majority are allotted to outfitters. Second, once permits and allotments become *de facto* private property, reductions in the number of users is difficult because that in fact reduces the value of a business. This is one reason the BLM and FS find it almost impossible to bring about range reductions. Any reduction in AUMs allotted to a rancher is in fact a reduction of the overall value of his ranch. Access to the river should remain completely public, not privatized.—*George Wuerthner; Livingston*

Montana Draws North Carolinians

I enjoy *Montana Outdoors* so very much. We have, in fact, passed our copies along to a number of our friends here in Newland. There are probably a couple of hundred people in our county of 1,400 who go to Montana each year fishing or hunting.

We all go to Ennis or McAllister year after year. Truly you are blessed with scenery and great folks.—*Melba V. Andrews; Newland, North Carolina*

Flying Fish...and Other Tales

by Wayne Fitzwater

graphics: Michael Korn

• *The following are accounts of events that happened 20 or more years ago to Wayne Fitzwater, a game warden (now retired) for the Montana Department of Fish, Wildlife & Parks. Since Montana's Centennial year coincides with establishment of the Montana game warden force, we thought our readers might enjoy sharing Fitzwater's recollections. His work has also appeared in* The Montana Game Warden, *a biannual publication of the Montana Association of State Fish and Game Wardens.*— Ed.

FLYING FISH

FOR A NUMBER OF YEARS, the limit for trout in Montana used to be 15 fish, with some minimum size and pound restrictions as well. But the daily bag limit for eastern brook trout was drastically changed, and a liberal limit of 10 pounds was imposed. As usual, many fishermen did not review the change in fishing regulations so they were unaware of this new, more liberal, limit.

While patrolling a brushy mountain stream, I noticed fresh tire marks leading onto a little used road. So I parked my vehicle and went toward the brushy stream bank. The stream was swift, rocky, and the rushing waters were quite noisy. After going a little ways, I saw a fisherman. I watched his fishing activities for some time and it became clear to me the fellow was catching very few fish because he kept hanging up on brush.

When I approached him, he was startled at first; he told me it was the first time he had ever been checked by a warden. Then he became quite talkative and did so with more volume as the conversation progressed.

I concluded that his loud talking was intended to let a fishing partner know that a game warden was there. So I didn't linger and proceeded along the stream as quickly as the heavy brush would allow.

Soon, I saw another fisherman. I stopped in a small clearing in the brush so I could watch this man's activities. Imagine my surprise when I was hit by a brook trout. Then another hit the ground nearby.

Because of the heavy brush, I couldn't see the man clearly, so I wove around the clumps of tangle and saw the fisherman hastily grabbing fish from his creel and throwing them in the brushiest direction.

I moved closer and spoke to him. He was even more surprised than the first man. He continued taking eastern brookies from his creel and put them on the ground saying, "I'm going to count and clean my fish." Once his creel was empty, he said, "By golly, I didn't think I had caught so many and it looks as though you've got me, Warden." There were 18 fish he had carefully laid out and I told him he had passed his creel and license check. He said, "Warden, I sure appreciate the consideration given me because it is easy to miscount when pan-sized fish are biting so good."

I told him about the liberal brookie limit and instead of citing him for wanton waste of fish, or some similar charge, I told him, "We'll retrieve all the flying fish possible and then determine if the total might be within the allowable poundage."

We retrieved a total of 36 fish, well under the 10 pounds. The man was embarrassed, dreadfully jovial and, as usual, implied that this was the first time he had caught so many fish. At least he didn't try to fib to me about the one that got away.

A NOSE FOR BUCK

I RECEIVED A CALL FROM A POLE CUTTER who told me he had heard a couple of rifle shots in the area in which he was working. This area was also being worked by a small logging/sawmill operation and the workers stayed in shacks on-site during the week.

The area is remote, but it so happened that the next day I was checking some cow and sheep camps and decided to patrol the logging area.

I parked my vehicle fairly close to the sawmill, where it was hidden from view, and then hiked to a high, rocky point that provided me with good surveillance of much of the area.

It was late on a Friday afternoon, so it wasn't long before the loggers and sawmill workers headed toward home. Except for one, all the vehicles left the area. The three men in the last pickup lingered a while and then went back up the logging road instead of going out toward the county road which led to town.

I thought the men could have forgotten some tools in the logging area, but I decided to wait just a bit before ending my vigil. Also, there was no way out of the logging area except through the sawmill site to the county road.

After only a short wait, the pickup with the three men returned and stopped at a tool shed near the sawmill. They put a couple of chain saws into the shed. Then one of the men raised the lid on a large toolbox in the back of the pickup and pulled out a hog-dressed buck deer carcass. They took the carcass into the tool shed and closed the door.

Because of the distance from where I was watching them to my vehicle and then to the sawmill, I decided to just stay put and keep my binoculars focused on the tool shed. In the meantime, I noted the make of the vehicle, color, etc., but I couldn't distinguish the license plate except for the county prefix.

After a while, one of the men opened the tool shed door and glanced around the area. He stepped outside with the buck deer head, hide, and legs. He hustled to the large sawdust pile, dug a sizable hole, and buried the deer parts.

He then rolled the deer carcass into a tarp and placed it in the pickup bed toolbox. The men left the sawmill site and headed out toward the county road.

Once they were out of sight, I left my vantage point, went to the sawdust pile, retrieved the deer parts, and put them inside my pickup bed toolbox.

I quickly left the area so I could

Wayne Fitzwater

overtake the vehicle with the three men in it. I got to the county road only to discover that a cattle truck was ahead of me. Because it was extremely dusty, I couldn't pass. The paved highway was about 12 miles away, but I had no choice but to follow the cattle truck.

Once I hit pavement, I overtook the pickup fairly quickly and I got close enough so I could note down the license number. I was afraid the driver might not stop when I flashed my red light and that he might try to outrun me. (This had happened several times during my years of working as a game warden.)

My close approach must have caught the attention of the driver because he kept looking in the large rear-view mirror and his two companions turned around to check me out through the rear cab window.

Once again, I closed the gap between the two vehicles and gave them a flashing red light.

They stopped, and I approached the vehicle afoot. The driver asked me what had prompted the highway stop, and he questioned if wardens even made highway traffic stops. I introduced myself and advised him that I was going to issue a citation and it would be necessary for him to appear before a Justice of the Peace in Lima which was about five miles ahead.

The man showed considerable concern and once he looked at the citation, he asked on what basis I had issued it. In a kidding way, I said, "When I first came up close behind your pickup, I thought I smelled fresh buck deer. On the second approach, I was sure, so I stopped you!"

The man said, "You don't see a buck deer, do you?" At that point, I advised him to drive on to Lima to appear in Justice Court.

When we got there, the man asked if I was sure I wanted to file such a charge and he scoffed at the proceedings. The charge was possession of and transporting an illegal deer.

The JP indicated he was ready to hear the case so, without looking in the pickup toolbox or unloading the deer carcass, the JP read the complaint and asked for a plea to the charge.

The man who received the complaint said to the judge, "This warden has made this charge against me and he hasn't seen any such deer and this whole thing really puzzles me."

The judge replied, "If Warden Fitzwater has charged you with this violation, I know he is sure of his case against you because he has a nose for such things!"

After a long pause, exchange of glances, and a shrug of shoulders, the man charged said, "Oh to hell with the whole thing. I guess I'm guilty if you are that sure."

The judge levied a fine and the three men paid it by pooling the money they had on hand. The judge, the three men, and I went to the pickup and unloaded the buck deer carcass. This was the first time it had been exposed since the men had loaded it at the sawmill.

The three men got in their pickup, closed the doors, and sat there for a few minutes talking. They seemed quite puzzled at the entire chain of events.

A little later, the driver came to the judge's door and asked if he thought the local service station would accept his personal check for gas because, between the three of them, they didn't have enough cash for gas to get home.

To this day, I wonder if the three men ever figured out what went wrong because I never explained what I'd seen at the sawmill.

I've always considered this an example of how Montana game wardens have a nose for such things.■

CONTRIBUTORS

• "The fading complexion of Montana's state park system can be attributed to a common ailment in troubled economic times—insufficient money for all needs." Beginning on page 2, **Loretta Johnson** explains how "New Entrance Fees Help Ailing State Parks." Money generated by the fees will provide for better day-to-day care of parks, permit park managers to catch up on the maintenance backlog, and enable the Parks Division to make significant improvements at some key units around the state. Johnson received her degree in English from Carroll College in May and is serving an internship with the Department of Fish, Wildlife & Parks in Helena.

• The last half of the 19th century in Montana is better known for wanton and wasteful slaughter of animals such as the buffalo than for wildlife conservation efforts. Yet the Territory's first Legislature (1865) passed a measure that regulated trout fishing. In 1869, the Territorial Legislature passed a measure to protect certain game birds. And in 1872, the Territorial lawmakers established a closed season to protect several big game species. To learn more about "Wildlife Law Enforcement—The Early Years," turn to **Joan Louise Brownell's** article on page 6. She completed her master's degree in history from Montana State University in 1987 and this article is excerpted from her thesis, "The Genesis of Wildlife Conservation in Montana." She lives in Bozeman and is director of Headwaters Cultural Research.

• "Doris" oversees a museum, maintains a raspberry patch, and runs herd over 20 acres of trees and grass. She writes up lists of chores for her neighbors and friends, consumes untold bottles of Mountain Dew, and can move faster than most people half her age. But it's her independence, her pride, and her sense of purpose that keep **John Fraley** coming back for weekly visits. Turn to page 15 for a warm and affectionate portrait of a woman who personifies the spirited men and women who settled Montana. Fraley is a fisheries program officer for the FW&P in Kalispell.

• **Jeanne Moon** says of her work, "The impact of language on our lives fascinates me....Calligraphic letter forms are an ideal medium for conveying the soul of a message." Turn to page 18 for a sample of her work and a soulful and appropriate message for Montana's Centennial: "I Am in Love with Montana." This piece appeared in a statewide Calligraphy Celebration show in Helena in April. Moon lives in Seeley Lake and is self-employed as a calligrapher and graphic artist. For more information, write her at Box 8; Seeley Lake, MT 59868 (406/677-2892).

• Not everybody gets hit by a flying brook trout when they're standing in a small clearing near a brushy mountain stream. Not everybody can sniff out a buck deer when it's in a pickup in front of them. Such is the stuff of tales, and **Wayne Fitzwater** tells some good ones about his warden days. He retired in 1978, after 28 years with the department. In 1971, he received the Warden of the Year Award. Turn to "Flying Fish...and Other Tales" on page 24.

• Most readers know that Montana has turtles, frogs, and snakes. But a "Mountain 'Gator?" As the story and photos by **Charles B. Place, III** prove, Montana does indeed harbor the northern alligator lizard. Sometimes reaching 13 inches in length, it lives in moist woodlands at elevations rising to 10,500 feet, and it is active during the day. Its preferred fare is insects, millipedes, spiders, and even snails. Place lives in Lolo and he's embarking on a career of free-lance writing and photography. We cheer his embarkation and suggest you turn to his article on page 27.

• The poetry of **Chris Manning** and the artistic whimsy of **Parks Reece** meld in "Mineralogy on the River" (page 30). The poem is about mica fins and sapphire and agate scales, and the illustration gives the words additional luster. Manning is a senior at Humboldt State University in Arcata, California, where he is studying journalism. He is a fly-fishing aficionado and a catch-and-release advocate. Reece's painting, "The Gift," was prepared especially to illustrate Manning's poetry. Reece is director and curator of the Danforth Art Center in Livingston. He does free-lance graphic arts and is resident artist of the historic Murry Hotel (201 West Park, 406/222-1350) in Livingston, where he also maintains his studio.

• Montana's parks offer a break from deadlines, clocks, and schedules. They connect us to our past, to our heritage—to ourselves. Beginning on page 32, **Marty Watkins** shares her "Perspectives" of a quiet visit to one of Montana's parks that is marked by bass fishing, camp coffee, and friendly conversation with new friends. Such an interlude is "Food for the Soul," she concludes. Watkins is a parks operations specialist for the department in Kalispell. Special illustration for Watkins' article was prepared by **Diane Nugent**, Butte. The history of camping—from cave man to the present—particularly piqued Nugent's curiosity and inspired her illustration. Nugent's wide-ranging work has appeared often in our pages; she works from her studio at 2214 Ottawa; Butte, MT 59701 (406/782-5255).

• Lots of concerned folks assisted **Robin Magaddino** in compiling "Living with Bald Eagles." They have a common goal—they're all working to conserve our national symbol. Beginning on page 34, the Montana Bald Eagle Working Group will explain why bald eagles need your help; some information about natural history, population trends, and nesting; some facts about bald eagles and human activity; and much more. Magaddino is sole proprietor of an ecological consulting business, "Wildlife Services," in Bigfork. She is also president of the Flathead Audubon Society.

• *MO* thanks the following for their contributions to this issue: photographers **Tony C. Caprio**; **Bob Cooney** and **Mike Logan**, Helena; **Diane Ensign** and **Steve Wirt**, Whitefish; **Gary D. Holmes**, Lolo; **Dave McGee**, **E. Gary Petersen**, and **Conrad Rowe**, Great Falls; **George Schuyler**, Billings; photographers who work for the department: **Dave Conklin** and **Donita Sexton**, Helena; **Dick Ellis**, Bozeman; **Terry Knupp**, Kalispell; and **Jerry Walker**, Billings; and **Michael Korn**, Helena, who prepared special illustration for Wayne Fitzwater's article.

Mountain 'Gator

story and photos by
Charles B. Place, III

A DARTING, ALMOST FRANTIC RUSTLING STIRRED the trailside litter near my feet as I hiked past. Then just as suddenly, it quit. I, too, stopped. All was quiet except the rumbling of Kootenai Creek as it surged and splashed beyond and over itself in its tumble out of the mountains of the Selway-Bitterroot Wilderness of western Montana.

"A lizard," I heard myself think. Then I announced this theory to my younger brother, Robert, who had caught up with me.

From my days as a youth growing up in Georgia, I knew the sound. I spent after-school hours and summer days of my pre-teen years searching for turtles, salamanders, and frogs in the creek running through my neighborhood. To me and my friends, this spot was a giant and untouched land open for exploration. I also conducted weekly lizard inspections of the houses on my block.

I found chameleons (actually green anoles) hiding in the crevices between the house siding and the rainwater down spouts at the corners of the houses. Blending into their surroundings by coloring themselves green on light-colored houses and brown on darker colored houses, they almost always changed to the other color when captured. Often, I would provoke them into changing color yet again by placing them on my shirt if its color contrasted with the skin tone of my hands.

By raising one end of the concrete splash guards footing the drain spouts, I was able to lift the roof off the spider web of burrows skinks had made in the cool, soft earth to escape predators and summer's heat. Surprised by this sudden and unexpected invasion of sunlight into their dark domain, the skinks were seldom confused. Usually by the time I had managed to tilt the slab high enough to peek under it, the lizards were already in full flight to a secondary refuge. Only occasionally was I quick enough to grab one of them and slide my finger along its smooth, glossy back and bright blue tail which still carried the coolness of its underground home.

Earth snakes and ringneck snakes were other common inhabitants of these subterranean canals. Unlike the skinks, the snakes remained stationary. Because they were looped in their coils, I had ample time to make the catch.

I also checked the fences, porch railings, and woodpiles that were the favored haunts of fence lizards, which we called "rustybacks." These lizards were fond of lazing in an open patch of sunlight, absorbing its warmth. Positioned as they were, ever watchful against predators, they presented difficulties in approach and capture. When I managed to catch one, I turned it onto its back to check its belly scales. The females had plain white bellies. But the male's belly shone with jet black and blue, beginning deep and dark but fading to the light hue of a clear, noon sky. The markings were striking and beautiful and added an extra measure of delight to a catch.

Northern alligator lizards live in cool, moist woodlands at elevations of up to 10,500 feet. They feed on insects, spiders, and millipedes, and may reach 13 inches in length.

AS A TEEN-AGER, AND FOR SOME YEARS AFTERWARD, I shifted my concentration to catching and collecting snakes. From June through August, the numbers and kinds of snakes filling the cages stacked on one wall of the basement increased. King snakes; gray and black rat snakes; common, banded, and brown water snakes; and other non-poisonous species shared space according to size and compatibility.

Other cages held my favorites: the poisonous species—copperheads; canebrake, timber, and eastern diamondback rattlesnakes; and water moccasins.

I learned early during my days afield that my hearing was as important as my sight. First, it opened more areas to observation than could be covered by my cone of vision. Second, the typically thick undercover of forest and swamp was a curtain against the eyes. Yet there was activity behind that curtain, and listening to and understanding the gentle noises and silences of the unseeable was vital to the success and safety of each outing.

Now, hearing that familiar scurrying, my curiosity was piqued. What kind of lizard lived in these mountains?

Backtracking a step or two on the trail, I surveyed the mix of leaves and twigs on the ground and the entrances to hiding places in the jumble of rock. Nothing.

But I resolved to listen for another lizard and catch it, if possible. I knew my two boys at home would be thrilled to have a pet lizard for a few days, and showing off in front of one's younger brother who is visiting is always fun. Besides, I wanted to prove to him (and to myself) that I could still read sign.

The dream of getting rid of the burden of a couple of days of hard hiking under a full pack and the fantasy of being back at the truck were put on hold by my determined listening. If imagining and preparedness can create opportunity, so it happened. I resumed hiking at a slower gait, so I had more time to react when my ears told me of a lizard I wasn't seeing. In the second or so that the escape sounds lasted, my hearing raced my eyes ahead of the pinpoints of sound so I would be looking at where the lizard would be instead of where he'd been.

I caught sight of his last flicker of movement before he froze under a covering of ponderosa pine needles and last fall's cottonwood leaves. Through the thin veil, I could see parts of his long body and tail and one side of his face. His dark eye was staring up at me.

Slowly, I moved into position. I used one arm to brace myself against one knee so I didn't topple under the now seriously off-balance load of my backpack. I held the other arm cocked, the palm of my hand stretched flat and my fingers extended and joined. The lizard remained still, not daring to move, thereby drawing attention to himself.

"You know what's going to happen, don't you?" Robert warned. "You're sure you want to do that?" he added.

"Yes," I answered. My internal clock counted, "One...two...three!" The tensioned spring in my arm was triggered, and my hand quickly but softly slapped down on the lizard, pinning him in a tangle of duff, flecks of stone, and his wildly flailing tail.

Maintaining the pin, I knelt to the ground so I could use my other hand to sift through the confusion, searching for a secure forefinger-and-thumb hold on the lizard's neck. Found, I lifted the lizard with one hand, taking hold of his middle with my other hand to support his body.

That was when he tried his natural-defense-and-escape behavior—coating me with excrement. Thanks to experience and Robert's reminder, I was successful in exercising some deft hand and finger manipulation. I avoided everything except the musky and rank odor, noticeable to Robert even though he was some yards away.

In conjunction with those efforts, the lizard turned his head right and left, trying to find some piece of his assailant to bite. My hold was firm against the base of his skull, leaving him unable to turn enough to chew on my fingers. Finally, he lay motionless in my hands. His mouth was open, displaying his small, translucent, needle-sharp teeth.

There was no physical danger to me, of course. A bite would probably draw a few drops of blood and inflict a sharp, stinging sensation like that of accidentally raking one's hand against some thorns. But this would result more from trying to jerk away from the bite than from the strength of the bite itself. Even so, the eons-old human abhorrence of being bitten by an animal, especially a reptile, inspired caution and sure handling.

I had never seen this kind of lizard, so I was eager to identify him. Immediately, I was impressed with his size and the hardness of his body. Once home, my sons, Chuck and Morgan, and I built an environment for the lizard in an unused

aquarium, complete with a rock cave in which he could hide. Then we sat down with the reptile field guides.

"Northern alligator lizard," the photo caption read. A close inspection of text and lizard confirmed it: *Gerrhonotus coeruleus principis*, which I didn't try to pronounce for the boys.

The guide related that the northern alligator lizard is a member of the Anguid family and shares the family characteristics of a long, shiny, stiff body and tail; closeable eyelids; external ear openings; and tiny, or even absent, legs and toes. Furthermore, the stiffness of the body in some members of this lizard family is so great that a flexible groove of scales along the side allows for expansion so the lizard can breathe.

It is one of four subspecies that ranges from western Montana west through southern British Columbia and northern Idaho and Washington to the Cascade Mountains, then south along the mountains into Oregon. The other three subspecies are not found in Montana.

It is active throughout the day (diurnal) in the cool, moist woodlands it inhabits, at elevations rising to 10,500 feet. The species mates in April or June, depending on elevation, bearing from two to 15 live young seven to 10 weeks later.

A carnivorous lizard, it feeds on insects, millipedes, spiders, and even snails. Adults reach 13 inches in length; our specimen measured a little over 10 inches long.

OUR FELLOW NEVER HAD IT SO GOOD as when he was occupying his new home. Each day brought a procession of neighborhood children carrying grasshopper offerings, either in jars or delicately pinched between thumb and fingers. (It reminded me of the times when kids who were complete strangers would knock on the door of my parents' house, small Hartz box in hand, wondering if they could watch me feed their newly purchased pet-store mouse to one of my snakes, ideally one of my rattlesnakes.) Dutifully, Chuck or Morgan would invite the guest to the lizard's cage and drop a grasshopper or two near the overhang of our lizard's hideaway cave.

Then everyone would sit back. Quiet and still. Waiting.

Not too shy about eating, the lizard would steal out from under his rock. His body movements bespoke his intentions and led us all to read some conscious desire or emotion into his face (which, in truth, bore the same stiff, scaled look as it did any other time of day).

Sometimes the approach to the grasshopper would be obvious and steady with no attempt at concealment or ambush. At other times, his movements would be achingly slow. First one leg and foot lifted, swung forward, and cautiously planted so as not to disturb the smallest grain of sand. Then another leg and foot moved in the same slow manner. Creeping ever closer until you just knew the pounce was coming. The seconds ticked by. What was he doing? Was he waiting for the grasshopper to hop just to be sure it was a grasshopper and not a stone?

Inevitably, a frustrated viewer would ask, "Why doesn't he do something?" Someone else would always add, "Why doesn't the dumb grasshopper do something?"

It was during this latter kind of approach that we noticed the lizard would often tuck his front legs along his sides and use his rear legs or the downhill slant of the ground to glide himself forward.

Less movement for the grasshopper to see, I supposed. Energy conservation. Efficiency. The line between lizard and snake became blurred. Mark of a point of time in evolution, perhaps.

Finally, he would move again, nosing forward until almost touching his quarry, before springing ahead and snapping his jaws tightly about his prey. Now those tiny, sharp teeth would hold their purchase while the lizard used his jaws, twisting head, the ground, and his front feet to maneuver the grasshopper—whole—down his throat.

His feeding was paced and orderly, accompanied by the audible crunch of the prey's exoskeleton. After the grasshopper had disappeared, the lizard would continue to open and close his empty mouth a few times to aid in swallowing. Finished.

The experienced spectators held their seats. There was one more action they were anticipating. His throat cleared, his stomach filled, the lizard stuck out his tongue, the tip curled up over his upper lip, and wiped his mouth from one corner of his jaw to the other.

In a way, I think, that lip-smacking tongue was more than just an engaging habit. It exclaimed the truth and rightness of the predator/prey relationship and, however unconsciously, answered questions concerning participation in, fascination with, and spying on the struggle that is life.

After a couple of weeks, the boys and I returned the lizard to his Kootenai Creek canyon home. There, we knew, he would find suitable habitat and others of his kind. We placed him on the ground in a fairly open area so we could watch him as he returned to the wild. Out of curiosity, I gave special attention to his method of locomotion. I noted that habitually he folded his legs to the side and let the terrain propel him forward as we had seen him do during his feeding sessions.

This led me to test him by trying to catch him. I found that the legless sliding off rocks and slipping through the ground cover added to his escape speed. I returned to considering that blurred line between snake and lizard and wondered if this mixture of legged and legless movement might be an unrecognized key to survival.

"Suppose," I speculated aloud to the boys, "that a coyote were pursuing this lizard for a meal, watching the lizard's churning legs zipping it along. Then all of a sudden there were no legs and the coyote found himself chasing something that looked like a snake. Since snakes require different handling than lizards when it comes to dining, this surprise change in prey might cause the coyote to hesitate. Then, before the coyote rediscovers he was indeed chasing a lizard, the lizard has managed to scoot to safety under some rocks."

The last we saw of our mountain alligator, he was calmly strutting into a dark recess in the rocks, sniffing under each crust of leaf he passed.

"Probably hunting for a snail to eat," Chuck said. Probably so.■

Mineralogy on the River

The cool form lies
in the contours of my hand
a rainbow of gems
that blends with the sand

With small teeth of glass
an obsidian eye
at home in the jade
under turquoise sky

There were bits of olivine
ruby and beryl
sapphire and agate
in each tiny scale

Its fins, thin mica,
were speckled with ore
and tourmaline held
the hook where it tore

Now amethyst and topaz
fill the sky
and I think of the unproductive
day gone by

Yet a beauty like no other
in my palm I see
so I kneel to the water
and set the trout free

—Chris Manning, 1988
illustrated by Parks Reece

"Food for the Soul"

by Marty Watkins
illustrated by Diane Nugent

IT'S QUIET...THE MIST across the lake is broken only by the reeds. My husband steps out of our motor home and shifts wood and paper onto the grill, starting a small fire to boil his coffee. He has a special pot for his campfire coffee. Blackened by previous fires and dented from miles of use, it's junk to anyone else. But to him, it holds memories of countless fires and countless camps. It bubbles and perks out a counterpoint to the sleepy cheeps of the sparrows.

After coffee, he slips down to his boat. Drifting into the mist, he lays his lure delicately against the reeds, enticing a bass to breakfast. I slip on my sweater and walk the pathways radiating from the park. I wander past the marshes at the edge of the lake. Pintails and grebes nest here, and the early morning stillness is punctuated by their nattering. I watch a muskrat ripple the water down shore. The mist coats sounds of a goose call. Like syrup, it flows along the water to shore. The path turns away from the shoreline and heads toward the hillside outside of camp. Firs and rose hips alike glow red with the rising sun, and my shoes and pant legs grow damp with morning dew. Only my footfalls and a pine squirrel churring at my heavy footedness break the spell. There are no clocks, no appointments, no schedules. Time is as it was when the first pioneer saw this vast and unbroken land. Did he feel as I do this morning? Did the quiet around him cause excitement—or fear?

This park, and others like it in Montana, connect us to the past, to our heritage, to ourselves. Without this connection, we would be floating in a void. How can you see the future when you can no longer see the past? This park is a link—to what we have been, what we are, and what we can be.

THE SMELL OF FRYING BACON calls me back to camp. Bob has returned to fix a "real" breakfast—bacon, eggs, and bread with large slabs of butter. He makes more campfire coffee and we slowly sip the steaming brew while surrounding campers begin to wake and stir. When we're done, Bob strikes out once again to search for the mighty bass.

I sit in a lawn chair, the sun on my face, reading a book which requires little thought. I watch as children from the next campsite make new friends and wander down to the swimming area. Few sounds are as pure as children's laughter. It reminds us that life—despite the disappointments and the evening news—is fun. The sound reminds me of when our children were small and joined us on our expeditions. They are grown now, except one who died, but they are all here with me today, brought back to life by other innocents repeating ageless rituals and exercises.

The people in the camper next door are from Germany. We introduce ourselves and discuss the differences in our perceptions. They are awed by the size of this land and the amount of unoccupied space. They are stunned by the waste they perceive around them. In Germany, all of the fallen underbrush would be gathered and burned. Their woods are groomed and neat; ours are wild and tangled. I talk about the necessity of returning nourishment to the soil and the lack of human population which has allowed many natural cycles to repeat, as they have for ages. The park around us preserves the cycles so we may learn. Do we not need a place to remind us that all life is cyclical? We must understand lest the cycles disappear, taking mankind with them.

As the sun sets, Bob returns victorious. He has caught and released six bass, and has dropped several pounds of stress. We share our dinner with the sunset and Schubert. The French horn is accompanied by geese, and we let the agelessness of the music match the eternity of the surrounding mountains.

BLANKETED BY STARS shy of city lights, we share our campfire with our neighbors. No television or radio interrupts conversation or demands attention. The children, full of hot chocolate, roasted marshmallows, and sun, have gone to bed. Timeless faces relax in the glow of the fire, while silent examination of the faces and the flames heightens quiet conversation.

Camping is not new. Man has banded together since time began. We continue a ritual of fellowship. It began when the first man shared the first fire after the first hunt of the autumn. It survived with woodsmen breaking over the Allegheny, with trappers exploring the Rockies, and with settlers on the Oregon Trail. Although our equipment is more elaborate and the distances aren't as great, the sharing of space and fire with fellow travelers brings us to the feet of our ancestors. Our thoughts, drifting toward heaven, are basic. They are the same thoughts that have drifted toward heaven for ages—thoughts of loved ones, thoughts of friends present and past, and dreams of tomorrow, and of yesterday.

Tomorrow we return to job, duty, and deadlines. We will work for five days to gain food for our bodies. But today and tonight, we have filled a greater need. We have provided food for our soul. ■

Hank Nugent ©1987

Living With Bald Eagles

compiled by Robin Magaddino

Bald eagle photo: CONRAD ROWE

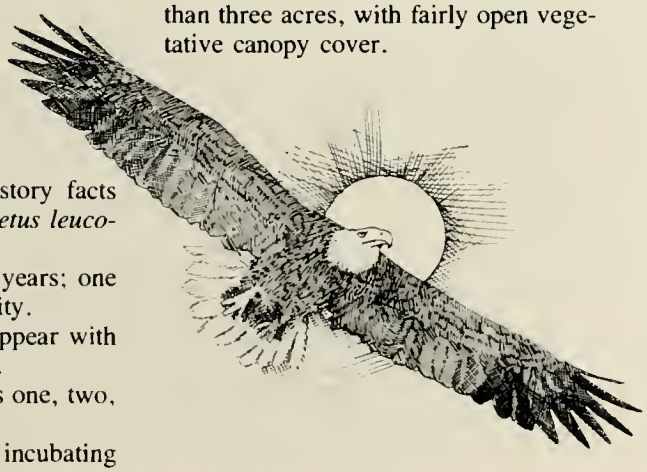
The Montana Bald Eagle Working Group

Increased human understanding of the environment and compassion for other species have helped steer bald eagles away from the path to extinction. Interest and assistance from all Montanans is needed if bald eagles are to thrive in the state. To this end, representatives of state and federal agencies, universities, conservation groups, and private industry founded the Montana Bald Eagle Working Group (MBEWG) in 1982. It was created to serve as technical adviser for research, management, inventory, and monitoring of bald eagles and their habitats in Montana and to provide a forum for exchange of this information. Intensive surveys have helped to identify many bald eagle nesting, roosting, and perching sites throughout the state.

Private landowners or land-use planners whose property supports bald eagle nesting, feeding, or roosting habitat have the opportunity to assist with bald eagle conservation in Montana. Please accept this invitation to join in partnership with both public and private land managers for conservation of our national symbol.

Why Do Bald Eagles Need Our Help?

Our growth and prosperity as a nation has often adversely affected wildlife species. Certain human activities at inappropriate times; cutting nest trees, roost trees, or adjacent forest stands; shooting; inadvertent poisoning; and contamination of the eagles' food supply continue to affect Montana's bald eagle population. Only through conscious efforts to reduce impacts will eagles flourish. Information about bald eagles and suggested ways to manage property for both private needs and the needs of bald eagles is contained in this article.



Natural History

Here are some natural history facts about the bald eagle, *Haliaeetus leucocephalus*:

- Bald eagles live up to 45 years; one survived to age 75 in captivity.
- The white head and tail appear with sexual maturity at 4-5 years.
- A successful pair produces one, two, or occasionally three young.
- Both parents share in incubating eggs; incubation lasts about 35 days.
- Young leave the nest after 11-14 weeks.
- The bald eagle is the largest bird of prey in Montana. It weighs from 7-13 pounds and has a 7 1/2-foot wingspan. Females are 30% larger than males.
- Eagles live year-round in Montana.
- Migration peaks in March and November.
- Migrants nest as far north as the Northwest Territories, Canada, and migrate south to most of the western states.
- Throughout the year, fish, waterfowl, and the remains of dead animals, such as deer and cattle, are the major food items.

Current Status

Current population trends show a promising increase in nesting bald eagles within Montana. As the impact of DDT diminishes, more young birds hatch and survive. The nesting bald eagle population in Montana has increased by an average of 15% per year, and eagles have occupied vacant historical nesting territories, as well as new sites. Since surveys began in 1980, the number of occupied nesting territories has grown from 25 to over 70. Successful nesting has resulted in an increasing number of young eagles during each of the past few years. Montana boasts an average brood size of nearly two eaglets per nest, the highest in the Pacific Northwest.

Bald Eagle Nesting

Bald eagle nesting habitat is somewhat predictable. Although exceptions occur, the majority of nest sites in Montana have the following characteristics:

- The nest is in a forest stand larger than three acres, with fairly open vegetative canopy cover.
- The nest is built in the top one-third of one of the tallest trees within the stand.
- An alternate nest may be found within the nesting territory.
- Eagles most often choose live trees for nesting; of those, ponderosa pine, Douglas-fir, and cottonwood are preferred. Eagles also use large snags (standing dead trees) of these species.
- Nests are within one mile and line of sight of a large river or a lake at least 80 acres in size.
- The nesting territory of one pair may include 10 or more miles of river or lake shoreline.
- New nests are built or old nests repaired during fall and late winter.
- Territories and nests are used repeatedly; some have been used for over 80 years. Territories may be reoccupied after many years of disuse.

Wintering

Although some nesting pairs remain in the state year-round, the winter population is supplemented by migrants from Canada. Most bald eagles spend the winter along major rivers feeding on fish and waterfowl, but others feed on carrion, jackrabbits, and other small mammals found on the open prairies bordering the rivers. Deer killed by vehicles along some Montana highways attract bald eagles. Spawning fish, big game carrion on winter ranges, and, occasionally, afterbirth left on calving grounds concentrates larger numbers of eagles at particular sites. The number of bald eagles observed during the annual mid-winter statewide survey has ranged from 350-650 birds.

Perch and Roost Sites

Bald eagles use perches during the day while hunting, feeding, or resting. One or more eagles sometimes use the same perch site throughout the year. Perches are usually in large trees with horizontal branches which allow a commanding view of the area or are adjacent to feeding sites. Roosts are used at night or for protection during bad weather and may be occupied by one to several hundred bald eagles. Bald eagles usually fly to roost sites at dusk and leave before sunrise. Roost sites consist of old-growth trees in an area which provides protection from cold, freedom from disturbance, and proximity to food. Roost sites, like nest sites, are often used year after year.

Living with Bald Eagles

Bald eagles need secure places to rest and raise young, undisturbed feeding areas, and suitable winter habitat. Whether property contains woodland, farmland, or wetlands, and whether it is managed for farming, timber production, or hunting, conservation and enhancement of bald eagle habitat can be part of overall land-use planning.

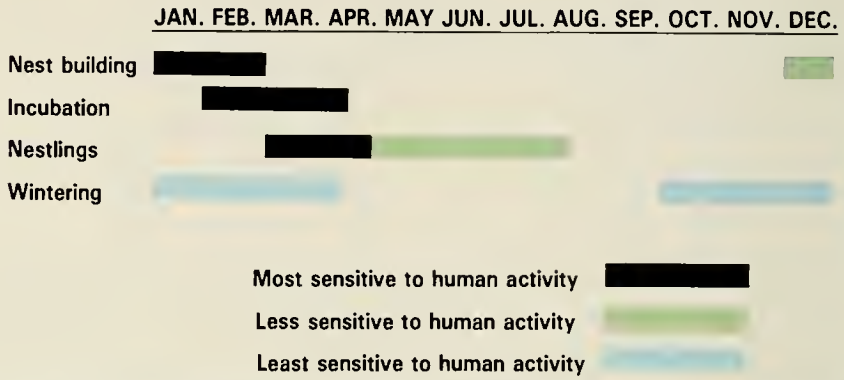
Once bald eagles are discovered using an area, or if property could potentially provide valuable eagle habitat, there are some guidelines for managing land with eagles in mind. Since each nest, roost, and feeding site has unique qualities, it's probably advisable to contact a member of the MBEWG for specific recommendations. In developing a land-management plan, cooperative land-use agreements are sometimes useful for integrating habitat considerations into the design. Members of the MBEWG and state and private organizations providing this service are listed at the end of this article.

Degradation and loss of habitat are the most severe problems affecting bald eagles in Montana. If improperly planned or constructed, river impoundment, timber harvest, road construction, and subdivision development near nesting and wintering areas can hinder the conservation of bald eagles and their habitat.

Human-related bald eagle deaths occur in Montana, as well as nationwide. Eagles have been killed by shooting, accidental trapping, poisoning, electrocution, and collision with power lines and moving vehicles. In recent years, new laws and an enlightened public have significantly reduced the incidence of human-caused mortality. The following guidelines can help reduce accidental deaths of bald eagles:

- Use strychnine and other predator-control substances after eagle migration, approximately April 20, in areas where migrating eagles feed. Do not use these pesticides where nesting eagles feed.
- Avoid using exposed bait for trapping.
- Notify the Montana Department of Highways or a local game warden to remove carrion from highways and deposit it where eagles may feed undisturbed.
- Construct power lines away from nest sites and migration corridors.
- Modify power poles with perches that minimize risk of electrocution.

Table 1 — SENSITIVITY OF BALD EAGLES TO HUMAN ACTIVITY THROUGHOUT THE ANNUAL CYCLE


JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.
Nest building
Incubation
Nestlings
Wintering
Most sensitive to human activity
Less sensitive to human activity
Least sensitive to human activity

Bald Eagles and Human Activity

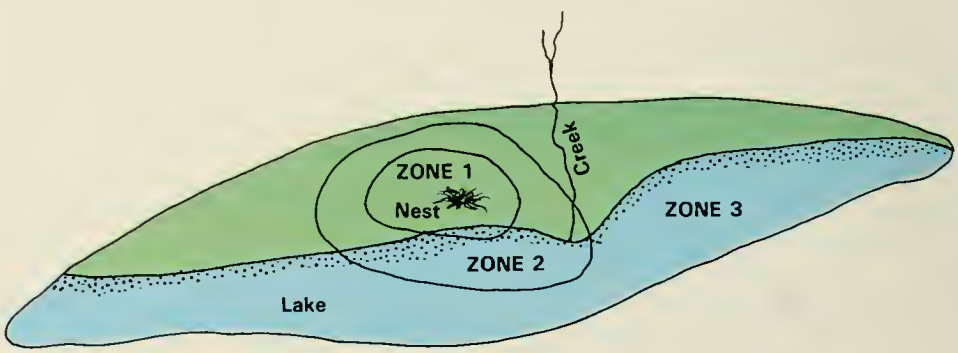
Human presence can disturb and at least temporarily displace bald eagles. Displacement during the nesting season can cause adults to change nest sites, abandon the nesting attempt for that year, or allow eggs to become chilled so they fail to hatch. People walking below the nest, boaters stopping near the nest, snowmobiling, blasting, shooting, tree-cutting, and operating loud equipment nearby can disturb bald eagles during the nesting season. Eagles gradually become more tenacious after the young have hatched and are less likely to abandon the nest site during the latter part of the nesting period. Many of these same activities prevent eagles from using perching and roosting areas.

Management Zones

Bald eagle managers have developed recommended management zones to define the space and privacy required by a nesting pair. If these zones were symmetrical, they could be drawn as a target with the nest at the bull's eye and with 1/4- to 2 1/2-mile-wide concentric rings around it. The zones within the home range are ultimately determined by observation of bald eagle use in the area. Size and shape of the zones may be influenced by topography and vegetation, as well as food sources.

- Zone 1—Nest site zone. An area of about 1/4-mile radius around the nest.
- Zone 2—Primary use area. An area of about 1/2-mile radius around the nest.
- Zone 3—Home range. All potential foraging habitat within 2 1/2 miles of the nest site.

Bald eagles can live with man's activities if land management considers the eagles' needs. Appropriate timing and location of activities such as farming, logging, construction, and recreation can be essential to nesting success. A pair of bald eagles may become accustomed to a tractor working in a field near the nest site or may tolerate



traffic moving along a nearby road. However, the eagles may become disturbed during the most sensitive part of the reproductive period (courtship through incubation) if human activities intensify, become unpredictable, or come too close to the nest site or feeding area. The dates in Table 2 correlate with Table 1.

Potential Nesting Habitat

Bald eagle researchers and resource managers estimate that Montana could support nearly twice the current number of nesting pairs. Management of potential nesting habitat is an integral part of the attempt to bring bald eagles up to a population and productivity level at which they are no longer considered threatened or endangered. Potential nesting habitat is defined as an area meeting most of the criteria which bald eagle nest sites have in common. Manipulation of the habitat or prey base may be necessary to make the potential site more attractive to bald eagles.

As the species gradually recovers from effects of past environmental abuses, more and more Americans will have an opportunity to see and appreciate this remarkable bird. A partnership of Montana citizens interested in responsible stewardship of land and waters will help ensure that the American bald eagle continues to fill its niche in nature.

Voluntary Landowner Protection

Interested private landowners can enter into cooperative programs with state or federal agencies to help protect nesting eagles. The Nature Conservancy, a private non-profit organization, also offers cooperative agreements. These "Registry Agreements" are not legally binding, but they acknowledge and encourage the important role of the private landowner in conservation. Consulting is provided at no cost for intended land-use changes which may affect bald eagles. The Nature Conservancy also offers assistance in locating a conservation buyer if a landowner is interested in selling property with valuable wildlife habitat. The Conservancy has natural area signs for posting registry sites which require landowner permission for access.

Granting a conservation easement, selling, or donating property to protect bald eagle nesting habitat may provide the private landowner with state and federal tax advantages. The following agencies and organizations can assist with these cooperative programs:

- The Nature Conservancy, P.O. Box 258; Helena, MT 59624 (406/443-0303;
- Montana Department of Fish, Wildlife & Parks, 1420 East Sixth Avenue; Helena, MT 59620 (406/444-2535);
- Montana Land Reliance, P.O. Box 355; Helena, MT 59624 (406/443-7027);
- Flathead Land Trust, 15 Depot Loop; Kalispell, MT 59901 (406/752-8293).

Contacts for the Montana Bald Eagle Working Group include:

- Dennis Flath, Montana Department of Fish, Wildlife & Parks; 1400 South 19th; Bozeman, MT 59717-0001 (406/994-6354);
- Rob Hazlewood, U.S. Fish and Wildlife Service, Federal Building, U.S. Courthouse, 301 South Park; Helena, MT 59626 (406/449-5225).

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Table 2 — SUGGESTED TIMING OF ACTIVITIES WITHIN MANAGEMENT ZONES

	Dec. 1-May 1	May 1-Aug. 15	Aug. 15-Dec. 1
Livestock grazing	Zone 1,2,3	Zone 1,2,3	Zone 1,2,3
Low intensity activities, such as dispersed recreation, out of nest sight	Zone 3	Zone 2,3	Zone 1,2,3
Farming — cultivating, planting	Zone 3	Zone 2,3	Zone 1,2,3
Use of buildings within the territory	Zone 3	Zone 2,3	Zone 1,2,3
Pesticide use that is safe for eagles and their prey	— —	Zone 2,3	Zone 1,2,3
Land alterations to maintain or improve nesting habitat	— —	Zone 3	Zone 1,2,3
Habitat changes which do not adversely affect foraging area	— —	Zone 3	Zone 1,2,3
Management to maintain prey base	— —	Zone 3	Zone 1,2,3
Hunting, trapping (during legal season)	— —	— —	Zone 1,2,3

SUGGESTED READING

Crenshaw, J., "Characteristics of Bald Eagle Communal Roosts in Glacier National Park, Montana," M.S. Thesis, University of Montana, Missoula, 1986.

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McClelland, Riley, "McDonald Creek's Bald Eagles: An International Resource," *Montana Outdoors*, Vol. 13, No. 6, pp. 2-6, 1982.

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Terres, John K., "Audubon Society Encyclopedia of North American Birds," Alfred A. Knopf, Inc., New York, 477 pages, 1980.

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